Red Hat
Process Automation

Datasheet

Red Hat Process Automation

Create cloud-native apps to automate business processes and decisions

Features

- Cloud-ready architecture
- Rich, standards-based APIs
- Pluggable repository
- Native BPMN 2.0 modeling, simulation, and execution of business processes
- Dynamic case management
- Advanced business activity monitoring, dashboards, and reports
- Embeddable, scalable business process and rules server

Product overview

Red Hat® Process Automation is a curated collection of software products from the Red Hat Middleware portfolio that together provide a comprehensive platform for developing cloud-native applications that automate business processes and decisions. The products included are Red Hat Decision Manager, Red Hat Process Automation Manager, and Red Hat Runtimes. The solution supports business process management (BPM), business rules management (BRM), business resource optimization, and complex event processing (CEP). In addition, it is compliant with popular industry standards like Business Process Model and Notation 2.0 (BPMN 2.0) and Decision Model and Notation 1.2 (DMN 1.2).

Red Hat Process Automation lets users capture business policies and procedures, create applications that automate business operations, and measure the results of business activities. It includes easy-to-use graphical tools that foster collaboration between IT and business users, in addition to better visibility into the rules and procedures that govern business applications.

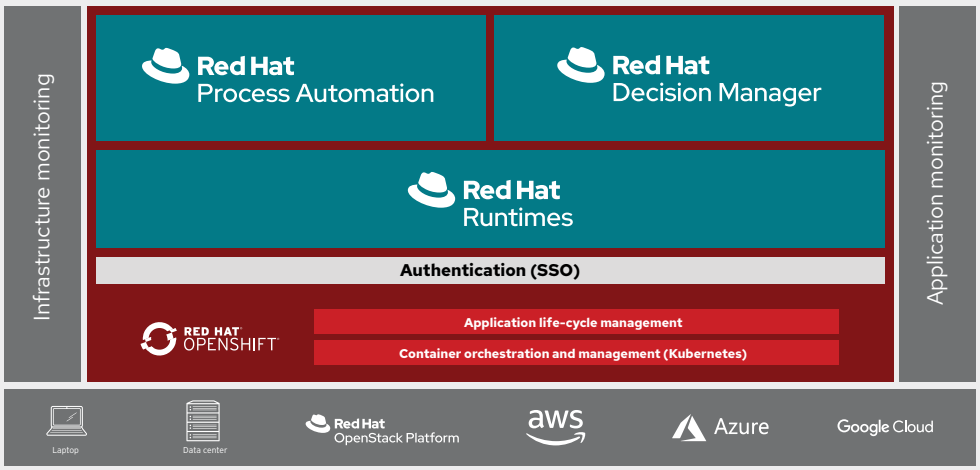

Figure 1. Red Hat Process Automation architecture

Red Hat Process Automation is produced using Red Hat's open source development model and by members of the Drools and jBPM communities. It includes a rich set of application programming interfaces (APIs) that enable straightforward integration with a wide range of complementary solutions. In particular, Red Hat Process Automation interoperates with Red Hat's portfolio of middleware products, including Red Hat Fuse for integration with external applications.

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Features and benefits

Red Hat Process Automation lets project stakeholders collaborate to build cloud-native business automation applications and microservices with a choice of modeling tools, including a web-based authoring environment for business experts and an Eclipse plugin for developers. A rich set of easy-to-use tools for process and decision management covers the full process life cycle – from modeling, simulation, and testing to deployment, monitoring, and optimization. Process and decision logic can be modeled and automated together, without the need to learn multiple tools or develop custom integrations between disparate environments.

Benefits

- Automated business operations
- Continuous optimization of business processes
- Accelerated development
- Business process and decision logic separated from application code
- Greater business agility, shorter development cycles, and faster time to market

Table 1. Features and benefits of Red Hat Process Automation

Key features	Benefits
Business modeling	Easy-to-use, web-based tools for business users to create models of business processes and decisions. Tools include BPMN 2.0 process modeling, DMN 1.2 decision modeling, decision tables, guided rules editing, data modeling, and forms designer.
Process services	Powerful runtime environment for execution of process models. Supports execution of BPMN 2.0 process models and Case Management Model and Notation (CMMN) 1.1 case models.
Decision services	Runtime environment for execution of DMN 1.2 decision models and business rules, including support for import and execution of machine-learned predictive models in PMML format.
Optimization services	Runtime environment for execution of models that solve complex optimization problems such as vehicle routing, shift rostering, and supply chain planning.
User experience (UX) modeling	Easy-to-use tools for business users to rapidly create end-user applications that interact with the runtime services. A library of prebuilt, micro front-end widgets are available to handle API calls, enabling task lists, forms, process graphs, and more.
Cloud-native application development	Cloud-based development tools for cloud-native applications. Red Hat Process Automation supports Red Hat OpenShift® Container Platform to build and deploy containerized microservices applications.

Technical specifications

Red Hat Process Automation includes four products and components from the Red Hat Middleware portfolio that together provide a complete solution for developing cloud-native business applications. Red Hat Process Automation is offered in quantities for 2, 16, and 64 processing cores and is optionally available packaged with Red Hat OpenShift Container Platform.

Figure 2. Red Hat Process Automation products and components

Table 2. Descriptions of Red Hat Process Automation products and components

Product or component	Description
Red Hat Process Automation Manager	Platform for developing containerized microservices and applications that automate business decisions and processes. It includes BPM, BRM, and CEP technologies and is compliant with popular industry standards like BPMN 2.0 and DMN 1.2 for process and decision management. Included also is a user experience platform to create engaging user interfaces for process and decision services with minimal coding.
Red Hat Decision Manager	Platform for developing containerized microservices and applications that automate business decisions. A subset of Process Automation Manager, Decision Manager includes BRM and CEP technologies and is compliant with popular industry standards like DMN 1.2 for decision management.

Product or component	Description
Red Hat Runtimes	A set of products, tools, and components to develop and maintain cloud-native applications. Includes runtimes for popular programming languages, frameworks, fast data access, and high-performance messaging.
Authentication (SSO)	Based on the Keycloak project, single sign-on (SSO) enables customers to secure web applications by providing web SSO capabilities based on popular standards such as SAML 2.0, OpenID Connect, and OAuth 2.0. The SSO server can act as a SAML or OpenID Connect-based identity provider, integrating an enterprise user directory or third-party SSO provider for identity information with applications via standards-based tokens.

About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.

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